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An Analysis of Hydrogen-Line Profiles Broadened by the Stark and Doppler Effects. (T/E) L. N. Kurochka. 13, 64 (1969) [46, 85 (1969)]

LATYSHEV, I. N.
Studies of Local Star Streams. II. The Ursa Major Stream. (E) K. F. Ogorodnikov and I. N. Latyshev. 13, 934 (1970) [46, 119 (1969)]

LEVSKII, L. K.
The Age of the Elements and the r-Process in the Solar System. (T/E) L. K. Levskii and I. M. Morozova. 13, 91 (1969) [46, 123 (1969)]

LIPOVKA, N. M.
Variability of Radio Sources at 6.6 cm Wavelength. (E/T) N. M. Lipovka. 13, 21 (1969) [46, 28 (1969)]

LIPSKII, Yu. N.
A Cartographic Grid for the Zond 3 Lunar Photographs Derived by Reference-Point Rectification. (E) Yu. N. Lipskii and V. I. Chikmachev. 13, 507 (1969) [46, 643 (1969)]

LIVSHITS, M. A.
The Difference of the Turbulent Velocities in the Active and Unperturbed Photosphere. (T/E) O. G. Badalyan and M. A. Livshits. 13, 811 (1970) [46, 1035 (1969)]

LOTOVA, N. A.
The Nature of the Inhomogeneous Structure of the Circumsolar Plasma. (T/E) I. S. Baikov and N. A. Lotova. 13, 828 (1970) [46, 1057 (1969)]

Faraday Rotation in Pulsars and the Interstellar Medium. (T/E) N. A. Lotova. 13, 914 (1970) [46, 1165 (1969)]

LOZINSKAYA, T. A.

Observations of the Filamentary Nebula IC 443 in the Hα Line with a Fabry-Perot Interferometer. (E) T. A. Lozinskaya. 13, 192 (1969) [46, 245 (1969)]

Interferometer Observations of the Filamentary Nebula S22. (E/T) T. A. Lozinskaya. 13, 573 (1970) [46, 730 (1969)]

LYUTYI, V. M.

Optical Variability of the Nucleus of the Seyfert Galaxy NGC 4151. (E) G. V. Zaitseva and V. M. Lyutyi. 13, 184 (1969) [46, 237 (1969)]

UBV Photometry of the Seyfert Galaxies. (E) É. A. Dibai, G. V. Zaitseva, and V. M. Lyutyi. 13, 187 (1969) [46, 240 (1969)]

MAROCHNIK, L. S.

The Spiral Structure of Galaxies. I. (T) L. S. Marochnik and A. A. Suchkov. 13, 252 (1969) [46, 319 (1969)]

The Spiral Structure of Galaxies. II. (T) L. S. Marochnik and A. A. Suchkov. 13, 411 (1969) [46, 524 (1969)]

A Possible Explanation for the Ring Structure in Disk Galaxies and the Probable Character of the Spiral and Ring Structure near Their Centers. (T) L. S. Marochnik and N. G. Pitsyna. 13, 598 (1970) [46, 762 (1969)]

MATVEENKO, L. I.

The Radio Brightness Distribution of the Crab Nebula at 32.5 cm Wavelength. (E) L. I. Matveenko. 13, 197 (1969) [46, 250 (1969)]

Measurements of the Right Ascension of the Crab Nebula at Meter Wavelengths. (E) L. I. Matveenko and A. V. Pynzar'. 13, 433 (1969) [46, 550 (1969)]

MIKHAILOV, A. A.

Remarks on Arifov and Kadyev's Paper, "The Relativistic Theory of Annual Parallaxes." (T) A. A. Mikhailov. 13, 358 (1969) [46, 454 (1969)]

MIRONOV, N. T.

Coordinate Systems for Studying the Earth's Rotation. (T) N. T. Mironov and E. P. Fedorov. 13, 1018 (1970) [46, 1303 (1969)]

MOISEEV, I. G.

Radio Emission of Venus and Jupiter at 2.25 and 8 mm. (E) V. A. Efanov, A. G. Kislyakov, I. G. Moiseev, and A. I. Naumov. 13, 110 (1969) [46, 147 (1969)]

MOLODENSKII, M. M.

Derivation of the Electron Energy Distribution from a Synchrotron-Radiation Spectrum. (T) M. M. Molodenskii. 13, 231 (1969) [46, 292 (1969)]

The Relation between the Stokes Parameters for Synchrotron Radiation and the Maxwell Stress Tensor of the Emission Region. (T) M. M. Molodenskii. 13, 625 (1970) [46, 797 (1969)]

MOROZ, V. I.

Photometric and Spectroscopic Observations of Planets in the 8-14 μ Range. (E/T) V. I. Moroz, V. D. Davydov, and V. S. Zhegulev. 13, 101 (1969) [46, 136 (1969)]

MOROZHENKO, A. V.

The Atmosphere of Mars According to Polarization Observations. (E/T) A. V. Morozhenko. 13, 852 (1970) [46, 1087 (1969)]

MOROZHENKO, N. N.

Excitation of Helium in Solar Prominences. (T) N. N. Morozhenko. 13, 929 (1970) [46, 1184 (1969)]

MOROZOV, Yu. I.

Relativistically Covariant Equations for the Coupling of Radiation with Matter. (T) V. S. Imshennik and Yu. I. Morozov. 13, 628 (1970) [46, 800 (1969)]

MOROZOVA, I. M.

The Age of the Elements and the r-Process in the Solar System. (T/E) L. K. Levskii and I. M. Morozova. 13, 91 (1969) [46, 123 (1969)]

MUSTEL', É. R.

The Influence of Corpuscular Streams on the Earth's Atmospheric Circulation. I. The Character of the Air-Pressure Variations at Different Seasons. (E) É. R. Mustel'. 13, 918 (1970) [46, 1169 (1969)]

MUZALEVSKII, Yu. S.

A Correlation Spectral Analysis of the Periodicities in Solar Activity. (T/E) L. V. Zhukov and Yu. S. Muzalevskii. 13, 473 (1969) [46, 600 (1969)]

NADËZHIN, D. K.

Neutrino Radiation by the URCA Process at High Temperatures. (T) D. K. Nadezhin and V. M. Chechetkin. 13, 213 (1969) [46, 270 (1969)]

The Light Curves of Supernovae. (T) É. K. Grasberg and D. K. Nadezhin. 13, 585 (1970) [46, 745 (1969)]

NAUMOV, A. I.

Radio Emission of Venus and Jupiter at 2.25 and 8 mm. (E) V. A. Efanov, A. G. Kislyakov, I. G. Moiseev, and A. I. Naumov. 13, 110 (1969) [46, 147 (1969)]

NEZHINSKII, E. M.

The Mean Velocity Dispersion and the Mass Distribution Law in Dynamical Systems. (T) E. M. Nezhinskii and L. P. Osipkov. 13, 540 (1969) [46, 685 (1969)]

NIKOL'SKII, G. M.

Polarization Measurement of Ca I λ 4227 Radiation from a Solar Prominence. (T/E) G. M. Nikol'skii and Ts. S. Khetsuriani. 13, 815 (1970) [46, 1040 (1969)]

NOVIKOV, I. D.

A Hypothesis for the Initial Spectrum of Perturbations in the Metric of the Friedmann Model Universe. (T) Ya. B. Zel'dovich and I. D. Novikov. 13, 754 (1970) [46, 960 (1969)]

NOVIKOV, V. V.

The Structure and Proposed Composition of Rocks on the Floors of Young Lunar Craters. (E) V. V. Novikov. 13, 874 (1970) [46, 1115 (1969)]

OGORODNIKOV, K. F.

Studies of Local Star Streams. II. The Ursa Major Stream. (E) Ogorodnikov and I. N. Latyshev. 13, 934 (1970) [46, 119 (1969)]

OSIPOV, G. F.

The Translation-Rotational Motion of a Celestial Body in the Generalized Hill Problem. (T) G. F. Osipov. 13, 129 (1969) [46, 172 (1969)]

OSIPKOV, L. P.

The Mean Velocity Dispersion and the Mass Distribution Law in Dynamical Systems. (T) E. M. Nezhinskii and L. P. Osipkov. 13, 540 (1969) [46, 685 (1969)]

OZERNOI, L. M.

Variable Radiation in a Magnetodynamic Quasar Model. II. Prediction of Rapid Brightness Variations. (T) L. M. Ozernoi and V. E. Chertoprud. 13, 738 (1970) [46, 940 (1969)]

Improved Statistical Parameters for the Optical Variability of the Quasar 3C 273. (E/T) L. M. Ozernoi, V. E. Chertoprud, and S. D. Chuvakhin. 13, 1029 (1970) [46, 1317 (1969)]

PALEICHIK, V. V.

Motion of the Interstellar Medium under the Action of a Nova or Supernova Envelope. (T) V. F. D'yachenko, V. S. Imshennik, and V. V. Paleichik. 13, 580 (1970) [46, 739 (1969)]

PAVLOVSKAYA, E. D.
A Method for Identifying High-Velocity OB Stars. (E/T) E. D. Pavlovskaya. 13, 660 (1970) [46, 840 (1969)]

PELYUSHENKO, S. A.
Absolute Temperature Measurements of the Cosmic Radio Emission of the Sky in the Decimeter Range. (E) S. A. Pelyushenko and K. S. Stankevich. 13, 223 (1969) [46, 283 (1969)]

PERALTA, R.
Installation of a Transit Instrument of the Large Pulkovo Type in Chile for Absolute Determinations of Stellar Right Ascensions. (E) Yu. A. Belyaev, V. M. Vasil'ev, R. Peralta, A. I. Plyugina, Yu. S. Streletskii, K. N. Tavastsherna, and R. Tapija. 13, 722 (1970) [46, 919 (1969)]

PERSIYANINOVA, N. R.
An Investigation of Low-Frequency Nonpolar Latitude Variations at Several Observatories. (E/T) N. R. Persiyaninova. 13, 144 (1969) [46, 192 (1969)]

PETROVSKAYA, I. V.
Purely Discontinuous Random Processes in an Irregular Force Field. I. (T) I. V. Petrovskaya. 13, 647 (1970) [46, 824 (1969)]
Purely Discontinuous Random Processes in an Irregular Force Field. II. Velocity Variation of a Star. (T) I. V. Petrovskaya. 13, 957 (1970) [46, 1220 (1969)]

PIKEL'NER, S. B.
Low-Energy Cosmic Rays and Plasma Turbulence. (T) S. B. Pikel'ner and V. N. Tsytovich. 13, 5 (1969) [46, 8 (1969)]
Proceedings of the Plasma Space Science Symposium. (R) C. C. Chang and S. S. Huang, Editors. Reviewed by S. B. Pikel'ner. 13, 169 (1969) [46, 219 (1969)]
A Mechanism for the Formation of Chromospheric Spicules. (T) S. B. Pikel'ner. 13, 259 (1969) [46, 328 (1969)]
Radio Astronomy and the Galactic System. (R) H. van Woerden, Editor. Reviewed by S. B. Pikel'ner. 13, 362 (1969) [46, 457 (1969)]

PLYUGINA, A. I.
Installation of a Transit Instrument of the Large Pulkovo Type in Chile for Absolute Determinations of Stellar Right Ascensions. (E) Yu. A. Belyaev, V. M. Vasil'ev, R. Peralta, A. I. Plyugina, Yu. S. Streletskii, K. N. Tavastsherna, and R. Tapija. 13, 722 (1970) [46, 919 (1969)]

PODURETS, M. A.
The Stability of the Quasistatic Solutions for a System of Gravitationally Interacting Masses in General Relativity Theory. (T) M. A. Podurets. 13, 94 (1969) [46, 126 (1969)]
The Relativistic Evolutionary Stage of Stellar Systems, Including Inelastic Collisions. (T) M. A. Podurets. 13, 618 (1970) [46, 787 (1969)]

POLONSKII, V. V.
Structure of the CO Layer in the Solar Atmosphere. (E/T) N. I. Kozhevnikov and V. V. Polonskii. 13, 267 (1969) [46, 337 (1969)]

POMAGAEV, S. G.
A Possible Cause of the Irreversibility in Rotating Stellar Systems with no Star-Star Encounters. (T) S. G. Pomagaev. 13, 635 (1970) [46, 810 (1969)]

PONOMARENKO, Yu. B.
The Development of Turbulence in a Conducting Field. (T) Yu. B. Ponomarenko. 13, 86 (1969) [46, 117 (1969)]
Generation of Stellar Magnetic Fields by Convective Motions in the Surface Layers. (T/E) Yu. B. Ponomarenko. 13, 295 (1969) [46, 376 (1969)]

PORFIR'EV, V. V.
Hydrodynamical Theory of Stellar Rotation. I. Rotation of Stars in the Gravitational-Contraction Phase. (T) V. V. Porfir'ev. 13, 442 (1969) [46, 560 (1969)]
Hydrodynamical Theory of Stellar Rotation. II. Steady-State Rotation and Meridional Circulation. (T) V. V. Porfir'ev. 13, 641 (1970) [46, 817 (1969)]

PREPELITSA, B. V.
Circular and Radial Trajectories in a Generalized Schwarzschild Field. (T) B. V. Prepelitsa. 13, 889 (1970) [46, 1130 (1969)]

PRILUTSKII, O.
Interaction of Cosmic-Ray Particles with Radiation in an Expanding Universe. (T/E) O. Prilutskii and I. L. Rozental'. 13, 381 (1969) [46, 481 (1969)]

PRONIK, I. I.
H II Zones in the Central Regions of Nine Normal Galaxies. (E) I. I. Pronik. 13, 593 (1970) [46, 755 (1969)]
On the Radio Emission of Normal Galaxies. (E/T) I. I. Pronik. 13, 747 (1970) [46, 951 (1969)]

PRONIK, V. I.
Observations of Chuadze's and Wild's Supernovae. (E) G. G. Borzov, É. A. Dibai, V. F. Esipov, and V. I. Pronik. 13, 423 (1969) [46, 540 (1969)]

PTITSYNA, N. G.
A Possible Explanation for the Ring Structure in Disk Galaxies and the Probable Character of the Spiral and Ring Structure near Their Centers. (T) L. S. Marochnik and N. G. Ptitsyna. 13, 598 (1970) [46, 762 (1969)]

PYNZAR', A. V.
Measurements of the Right Ascension of the Crab Nebula at Meter Wavelengths. (E) L. I. Matveenko and A. V. Pynzar'. 13, 433 (1969) [46, 550 (1969)]

RADZIEVSKII, V. V.
The Interaction of Stars with the Interstellar Medium. (T/E) V. V. Radzievskii and M. M. Dagaev. 13, 42 (1969) [46, 56 (1969)]
Acceleration of the Galactic Motion of Stars. (T/E) E. F. Brazhnikova, M. M. Dagaev, and V. V. Radzievskii. 13, 480 (1969) [46, 610 (1969)]

RAZNIK, R. M.
Observations of Early-Type Stars in the Cluster NGC 6913. (E) R. M. Raznik. 13, 657 (1970) [46, 837 (1969)]

REZNOVA, L. V.
Solar Radiation Pressure on Particles of Interplanetary Dust. (T) L. M. Gindilis, N. B. Divari, and L. V. Reznova. 13, 114 (1969) [46, 152 (1969)]

ROZENTAL', I.
Metagalactic Electrons. (T) I. Rozental' and I. Shukalov. 13, 210 (1969) [46, 266 (1969)]

ROZENTAL', I. L.
Interaction of Cosmic-Ray Particles with Radiation in an Expanding Universe. (T/E) O. Prilutskii and I. L. Rozental'. 13, 381 (1969) [46, 481 (1969)]
Electrons and Photons in an Expanding Universe. (T) I. L. Rozental' and I. Shukalov. 13, 612 (1970) [46, 779 (1969)]

RUMYANTSEV, A. A.
Supernova Outbursts and the Generation of Relativistic Particles. (T/E) L. É. Gurevich and A. A. Rumyantsev. 13, 908 (1970) [46, 1158 (1969)]

RYBAKOV, A. I.
The Stability of Stellar Systems of the Orion Trapezium Type. (T) G. N. Duboshin and A. I. Ryabakov. 13, 704 (1970) [46, 895 (1969)]

RYKHLOVA, L. V.
Evaluation of the Earth's Free-Nutation Parameters from 119 Years of Observations. (E/T) L. V. Rykhlova. 13, 544 (1969) [13, 689 (1969)]

RZHIGA, O. N.
A Computer Determination of the 40 cm Flux Density of 3C 270 and 3C 278. (E) O. N. Rzhiga and Z. G. Trunova. 13, 28 (1969) [46, 37 (1969)]

SAGITOV, M. U.
Current Status of Determinations of the Gravitational Constant and the Mass of the Earth. (R) M. U. Sagitov. 13, 712 (1970) [46, 907 (1969)]

SALMAN-ZADE, R. Kh.
Limb Effect of the Fraunhofer Lines in the Solar Spectrum. (E/T) R. Kh. Salman-Zade. 13, 466 (1969) [46, 589 (1969)]

SAZONOV, V. N.
Negative Reabsorption of Synchrotron Radiation. (T) V. N. Sazonov. 13, 797 (1970) [46, 1016 (1969)]

SHAKHOVSKOI, N. M.
The Spatial Orientation of the Orbit Planes of Close Binary Stars. (E/T) N. M. Shakhovskoi. 13, 303 (1969) [46, 386 (1969)]

SHAKURA, N. I.
X-Ray Emission Accompanying the Accretion of Gas by a Neutron Star. (T) Ya. B. Zel'dovich and N. I. Shakura. 13, 175 (1969) [46, 225 (1969)]

SHAROV, A. S.
The Infrared Brightness of the Milky Way. (E) A. S. Sharov. 13, 947 (1970) [46, 1207 (1969)]

SHCHEGLOVA, S. I.
Computations for an Astronomical Fabry-Perot Interference Spectrometer. (T) S. I. Shcheglova. 13, 696 (1970) [46, 885 (1969)]

SHCHUKO, O. B.
Inhomogeneous Properties of Lunite in the Subsurface Layer. (T/E) O. B. Shchuko. 13, 989 (1970) [46, 1264 (1969)]

SHKLOVSKII, I. S.
The Nature of Sources of Maser Radiation in OH Lines. (T) I. S. Shklovskii. 13, 1 (1969) [46, 3 (1969)]
Possible Causes of the Secular Increase in Pulsar Periods. (T (T/E) I. S. Shklovskii. 13, 562 (1970) [46, 715 (1969)]
The Origin of Absorption Lines in the Spectra of Quasistellar Objects. (T/E) I. S. Shklovskii. 13, 734 (1970) [46, 935 (1969)]

SHKODROV, V. G.
A Method for Determining the Earth's Potential from Gravity Measurements on a Known Surface, and Its Accuracy for a Model Earth. (T) V. G. Shkodrov. 13, 352 (1969) [46, 446 (1969)]

SHNOL', É. É.
The Gravitational Stability of a Gas Sphere. (T) É. É. Shnol'. 13, 762 (1970) [46, 970 (1969)]

SHTEINS, K. A.
Allowance for Image Brightness Distribution in Photoelectric Star-Transit Timings. (T/E) K. A. Shteins and R. K. Kalnin'. 13, 519 (1969) [46, 658 (1969)]

SHUKALOV, I.
Metagalactic Electrons. (T) I. Rozental' and I. Shukalov. 13, 210 (1969) [46, 266 (1969)]
Electrons and Photons in an Expanding Universe. (T) I. L. Rozental' and I. Shukalov. 13, 612 (1970) [46, 779 (1969)]

SHUL'BERG, A. M.
Application of Nonlinear Limb-Darkening Laws to Close Binary Systems. (T) M. E. Kiperman and A. M. Shul'berg. 13, 324 (1969) [46, 412 (1969)]

SIDORENKOV, N. S.
Nonuniformities in the Earth's Rotation from Astronomical Observations during 1965.0-1968.0. (E) N. S. Sidorenkov. 13, 166 (1969) [46, 215 (1969)]

SINITSYN, V. G.
Refraction and Scattering of Radiation from Cosmic Radio Sources Occulted by the Solar Corona. (T) P. V. Bliokh, V. G. Sinitsyn, and I. M. Fuks. 13, 275 (1969) [46, 348 (1969)]

SKREBKOVA, L. A.
Absorption of Radio Waves by the Interstellar Medium and the Distribution of Cosmic Radio Emission. (E/T) E. A. Benediktov, T. V. Efimova, and L. A. Skrebkova. 13, 226 (1969) [46, 286 (1969)]

SLONIM, Yu. M.
Chromospheric Flares and Phenomena in the Upper Layer of an Active Region. I. (E/T) Yu. M. Slonim. 13, 450 (1969) [46, 570 (1969)]
Chromospheric Flares and Phenomena in the Upper Layer of an Active Region. II. (T) Yu. M. Slonim. 13, 551 (1970) [46, 697 (1969)]

SOBOLEV, V. V.
Surface Albedo and Illuminance of a Planet with an Atmosphere. (T) V. V. Sobolev. 13, 330 (1969) [46, 419 (1969)]
Anisotropic Scattering of Light in a Semi-Infinite Atmosphere. III. (T) V. V. Sobolev. 13, 403 (1969) [46, 512 (1969)]
Diffuse Reflection and Transmission of Light by an Atmosphere for an Arbitrary Scattering Function. (T) V. V. Sobolev. 13, 893 (1970) [46, 1137 (1969)]

SOBOLEVA, N. S.
Observations of Jupiter at Pulkovo at 3.95 cm. (E) N. S. Soboleva and G. M. Timofeeva. 13, 685 (1970) [46, 872 (1969)]
Observations at Pulkovo of the Distribution of Polarized and Unpolarized Radiation over the Radio Source W44 at 3.95 and 6.6 cm. (E/T) N. S. Soboleva. 13, 750 (1970) [46, 955 (1969)]

SOROCHENKO, R. I.
Relation between the Discrete Radio Source W 43 and the Neutral-Hydrogen Distribution. (E) V. I. Ariskin, I. I. Berulis, and R. L. Sorochenko. 13, 219 (1969) [46, 278 (1969)]
The Milky Way in the Range $l^{II} = 20.8$–$32.8°$ at 21.1 cm. (E) V. I. Ariskin, I. I. Berulis, and R. L. Sorochenko. 13, 902 (1970) [46, 1149 (1969)]

SAZONOV, V. N.
Generation and Transfer of Polarized Synchrotron Radiation. (T) V. N. Sazonov. 13, 396 (1969) [46, 502 (1969)]

SPANGENBERG, E. E.
The Radio Emission of Nearby Galaxies at 3.5 cm. (E) V. N. Kuril'chik, A. E. Andrievskii, V. N. Ivanov, and E. E. Spangenberg. 13, 881 (1970) [46, 1124 (1969)]

STANKEVICH, K. S.
Absolute Temperature Measurements of the Cosmic Radio Emission of the Sky in the Decimeter Range. (E) S. A. Pelyushenko and K. S. Stankevich. 13, 223 (1969) [46, 283 (1969)]

STARODUBTSEV, A. M.
Long-Term Measurements of Lunar Radio Emission at 3.2 cm. (E) A. M. Starodubtsev. 13, 514 (1969) [46, 652 (1969)]

STEPANYAN, N. N.
Spectroscopic Investigation of a Chromospheric Flare on September 2, 1966. (E) N. N. Stepanyan. 13, 459 (1969) [46, 580 (1969)]

STRAIŽYS, V.
Improved Determination of the Response Curves and Parameters of the UBV System. Summary of Results. (E/T) A. Ažusienis and V. Straižys. 13, 316 (1969) [46, 402 (1969)]

STRELESKII, Yu. S.
Installation of a Transit Instrument of the Large Pulkovo Type in Chile for Absolute Determinations of Stellar Right Ascensions. (E) Yu. A. Belyaev, V. M. Vasil'ev, R. Peralta, A. I. Plyugina, Yu. S. Streletskii, K. N. Tavastsherna, and R. Tapija. 13, 722 (1970) [46, 919 (1969)]

SUCHKOV, A. A.
The Spiral Structure of Galaxies. I. (T) L. S. Marochnik and A. A. Suchkov. 13, 252 (1969) [46, 319 (1969)]
The Spiral Structure of Galaxies. II. (T) L. S. Marochnik and A. A. Suchkov. 13, 411 (1969) [46, 524 (1969)]
Non-Jeans Gravitational Instability of a System of Stars and Interstellar Gas. (T) A. A.Suchkov. 13, 418 (1969) [46, 534 (1969)]

SYUNYAEV, R. A.
Thermal Conditions in the Intergalactic Gas. (T/E) A. G. Doroshkevich and R. A. Syunyaev. 13, 15 (1969) [46, 20 (1969)]
Interaction of the Ionizing Background Radiation with Galaxies, and Limits on the Intergalactic Gas Density. (T/E) R. A. Syunyaev. 13, 729 (1970) [46, 929 (1969)]

TAPIJA, R.
Installation of a Transit Instrument of the Large Pulkovo Type in Chile for Absolute Determinations of Stellar Right Ascensions. (E) Yu. A. Belyaev, V. M. Vasil'ev, R. Peralta, A. I. Plyugina, Yu. S. Streletskii, K. N. Tavastsherna, and R. Tapija. 13, 722 (1970) [46, 919 (1969)]

TASHPULATOV, N.
The Tidal Effect and the Formation of Bars and Tails in Galaxies. I. Tidal Formation of Linear Bridges between Galaxies. (T) N. Tashpulatov. 13, 968 (1970) [46, 1236 (1969)]

TAVASTSHERNA, K. N.
Installation of a Transit Instrument of the Large Pulkovo Type in Chile for Absolute Determinations of Stellar Right Ascensions. (E) Yu. A. Belyaev, V. M. Vasil'ev, R. Peralta, A. I. Plyugina, Yu. S. Streletskii, K. N. Tavastsherna, and R. Tapija. 13, 722 (1970) [46, 919 (1969)]

TEIFEL', V. G.
The Molecular Rotational Temperature of Uranus and an Upper Limit on the Pressure in its Outer Atmosphere. (E/T) V. G. Teifel' and G. A. Kharitonova. 13, 865 (1970) [46, 1104 (1969)]

TEPLITSKAYA, R. B.
Equivalent Line Widths in Sunspots. (T/E) R. B. Teplitskaya and V. D. Turchina. 13, 55 (1969) [46, 74 (1969)]

TIKHONOV, A. N.
Reconstruction of the Radio-Brightness Distribution over a Surface. (T) A. N. Tikhonov, V. V. Vitkevich, V. S. Artyukh, V. B. Glasko, A. V. Goncharskii, and A. G. Yagola. 13, 374 (1969) [46, 472 (1969)]

TIKHONOVA, T. V.
Effect of Heat from within the Moon on Its Radio Emission for the Case of Lunar Properties Which Vary with Depth. (T) T. V. Tikhonova and V. S. Troitskii. 13, 120 (1969) [46, 159 (1969)]
The Spectral Reflection Coefficient of the Lunar Surface for Radio Waves, and the Depth Dependence of the Soil Properties. (E/T) T. V. Tikhonova and V. S. Troitskii. 13, 1039 (1970) [46, 1324 (1969)]

TIMOFEEVA, G. M.
Observations of Jupiter at Pulkovo at 3.95 cm. (E) N. S. Soboleva and G. M. Timofeeva. 13, 685 (1970) [46, 872 (1969)]

TROITSKII, V. S.
Effect of Heat from within the Moon on Its Radio Emission for the Case of Lunar Properties Which Vary with Depth. (T) T. V. Tikhonova and V. S. Troitskii. 13, 120 (1969) [46, 159 (1969)]
The Spectral Reflection Coefficient of the Lunar Surface for Radio Waves, and the Depth Dependence of the Soil Properties. (E/T) T. V. Tikhonova and V. S. Troitskii. 13, 1039 (1970) [46, 1324 (1969)]

TRUBITSYN, V. P.
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TRUNOVA, Z. G.
A Computer Determination of the 40 cm Flux Density of 3C 270 and 3C 278. (E) O. N. Rzhiga and Z. G. Trunova. 13, 28 (1969) [46, 37 (1969)]

TSAP, T. T.
The Properties of Motions Inside and Outside of Flocculi. (E) S. I. Gopasyuk and T. T. Tsap. 13, 725 (1970) [46, 923 (1969)]

TSYTOVICH, V. N.
Low-Energy Cosmic Rays and Plasma Turbulence. (T) S. B. Pikel'ner and V. N. Tsytovich. 13, 5 (1969) [46, 8 (1969)]
The Buildup of Electromagnetic Waves by the Induced Compton Effect as a Possible Source of Strong Radio Emission. (T/E) S. A. Kaplan and V. N. Tsytovich. 13, 150 (1969) [46, 199 (1969)]
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TSAREVSKII, G. S.
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TURCHINA, V. D.
Equivalent Line Widths in Sunspots. (T/E) R. B. Teplitskaya and V. D. Turchina. 13, 55 (1969) [46, 74 (1969)]

VAINSHTEIN, L. A.
Excitation, Ionization, and Recombination Rates for Ions in the Solar-Corona Plasma. (T) L. L. Beigman, L. A. Vainshtein, and A. Vinogradov. 13, 775 (1970) [46, 985 (1969)]

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VALEEV, S. G.
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VASILEVSKII, A. E.
Reddening Lines in the UBV System for Type G8-K0 Giants. (E/T) A. E. Vasilevskii. 13, 485 (1969) [46, 616 (1969)]

VELTMANN, Ü.-I. K.
Determination of the Surface Brightness of Globular Clusters with a Circular Diaphragm and a Narrow Slit. (E) Ü.-I. K. Veltmann. 13, 517 (1969) [46, 655 (1969)]
Application of a Narrow Slit in the Photometry of Stellar Systems. (E) Ü.-I. K. Veltmann. 13, 542 (1969) [46, 687 (1969)]

VINOGRADOV, A.
Excitation, Ionization, and Recombination Rates for Ions in the Solar-Corona Plasma. (T) I. L. Beigman, L. A. Vainshtein, and A. Vinogradov. 13, 775 (1970) [46, 985 (1969)]

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Reconstruction of the Radio-Brightness Distribution over a Surface. (T) A. N. Tikhonov, V. V. Vitkevich, V. S. Artyukh, V. B. Glasko, A. V. Goncharskii, and A. G. Yagola. 13, 374 (1969) [46, 472 (1969)]
Radioastronomical Investigations of the Drift of the Inhomogeneous Interplanetary Plasma. (E) V. V. Vitkevich and V. I. Vlasov. 13, 669 (1970) [46, 851 (1969)]

VITRICHENKO, É. A.
The Blue Companion of Delta Cephei (δ Cep C). (E) É. A. Vitrichenko and G. S. Tsarevskii. 13, 159 (1969) [46, 208 (1969)]

VLASOV, V. I.
Radioastronomical Investigations of the Drift of the Inhomogeneous Interplanetary Plasma. (E) V. V. Vitkevich and V. I. Vlasov. 13, 669 (1970) [46, 851 (1969)]

VORONTSOV-VEL'YANIMOV, B. A.
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VSEKHSVYATSKII, S. K.
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YAGOLA, A. G.
Reconstruction of the Radio-Brightness Distribution over a Surface. (T) A. N. Tikhonov, V. V. Vitkevich, V. S. Artyukh, V. B. Glasko, A. V. Goncharskii, and A. G. Yagola. 13, 374 (1969) [46, 472 (1969)]

YANKULOVA, I. M.
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YANOVITSKII, É. G.
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ZAITSEVA, G. V.
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X-Ray Emission Accompanying the Accretion of Gas by a Neutron Star. (T) Ya. B. Zel'dovich and N. I. Shakura. 13, 175 (1969) [46, 225 (1969)]
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A Quasi-Absolute Method for Reducing Differential Meridian Observations. (T/E) M. S. Zverev. 13, 1008 (1970) [46, 1290 (1969)]

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Proceedings of the Plasma Space Science Symposium. (R) C. C. Chang and S. S. Huang, Editors. Reviewed by S. B. Pikel'ner. 13, 169 (1969) [46, 219 (1969)]

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Radio Astronomy and the Galactic System. (R) H. van Woerden, Editor. Reviewed by S. B. Pikel'ner. 13, 362 (1969) [46, 457 (1969)]

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Supernova Outbursts and the Generation of Relativistic Particles. (T/E) L. É. Gurevich and A. A. Rumyantsev. 13, 908 (1970) [46, 1158 (1969)]

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UBV Photometry of the Seyfert Galaxies. (E) É. A. Dibai, G. V. Zaitseva, and V. M. Lyutyi. 13, 187 (1969) [46, 240 (1969)]

GALAXIES, RADIO EMISSION

Properties of the Nucleus of the Radio Galaxy NGC 1275 (Perseus A). (E/T) É. A. Dibai. 13, 569 (1970) [46, 725 (1969)]

On the Radio Emission of Normal Galaxies. (E/T) I. I. Pronik. 13, 747 (1970) [46, 951 (1969)]

The Radio Emission of Nearby Galaxies at 3.5 cm. (E) V. N. Kuril'chik, A. E. Andrievskii, V. N. Ivanov, and E. E. Spangenberg. 13, 881 (1970) [46, 1124 (1969)]

GALAXIES, ROTATION AND MASS

Comparison between the Masses of Galaxies Determined by Optical and Radio Methods. (E/T) B. A. Vorontsov-Vel'yaminov. 13, 235 (1969) [46, 297 (1969)]

A New Mass-Luminosity Relation for Elliptical Galaxies. (E/T) I. L. Genkin and L. M. Genkina. 13, 886 (1970) [46, 1128 (1969)]

GALAXIES, SPECTRA

H II Zones in the Central Regions of Nine Normal Galaxies. (E) I. I. Pronik. 13, 593 (1970) [46, 755 (1969)]

GALAXIES, STRUCTURE

The Spiral Structure of Galaxies. I. (T) L. S. Marochnik and A. A. Suchkov. 13, 252 (1969) [46, 319 (1969)]

The Spiral Structure of Galaxies. II. (T) L. S. Marochnik and A. A. Suchkov. 13, 411 (1969) [46, 524 (1969)]

A Possible Explanation for the Ring Structure in Disk Galaxies and the Probable Character of the Spiral and Ring Structure near Their Centers. (T) L. S. Marochnik and N. G. Ptitsyna. 13, 598 (1970) [46, 762 (1969)]

GALAXY (MILKY WAY), RADIO EMISSION

Absolute Temperature Measurements of the Cosmic Radio Emission of the Sky in the Decimeter Range. (E) S. A. Pelyushenko and K. S. Stankevich. 13, 223 (1969) [46, 283 (1969)]

Absorption of Radio Waves by the Interstellar Medium and the Distribution of Cosmic Radio Emission. (E/T) E. A. Benediktov, T. V. Efimova, and L. A. Skrebkova. 13, 226 (1969) [46, 286 (1969)]

Radio Astronomy and the Galactic System. (R) H. van Woerden, Editor. Reviewed by S. B. Pikel'ner. 13, 362 (1969) [46, 457 (1969)]

An Extended Ionized Complex of Material at the Periphery of the Galaxy. (E) V. I. Ariskin. 13, 589 (1970) [46, 750 (1969)]

The Milky Way in the Range $l^{II} = 20.8-32.8°$ at 21.1 cm. (E) V. I. Ariskin, I. I. Berulis, and R. L. Sorochenko. 13, 902 (1970) [46, 1149 (1969)]

GALAXY, SPECTROPHOTOMETRY

The Infrared Brightness of the Milky Way. (E) A. S. Sharov. 13, 947 (1970) [46, 1207 (1969)]

GALAXY, STRUCTURE

The Space Distribution of B8—A0 and Early B Stars in Some Milky-Way Fields at Galactic Longitudes 15°-136°. (E) N. B. Grigor'eva. 13, 807 (1970) [46, 1029 (1969)]

GEOMAGNETIC ACTIVITY

Geomagnetic Disturbances at Conjugate Points and Some Effects of Solar Plasma on the Magnetosphere. (E/T) M. S. Bobrov. 13, 677 (1970) [46, 862 (1969)]

GRAVITATIONAL INSTABILITY

Non-Jeans Gravitational Instability of a System of Stars and Interstellar Gas. (T) A. A. Suchkov. 13, 418 (1969) [46, 534 (1969)]

Hydrodynamical Theory of Stellar Rotation. I. Rotation of Stars in the Gravitational-Contraction Phase. (T) V. V. Porfir'ev. 13, 442 (1969) [46, 560 (1969)]

The Gravitational Stability of a Gas Sphere. (T) É. Ê. Shnol'. 13, 762 (1970) [46, 970 (1969)]

GRAVITY AND GRAVIMETRY

A Method for Determining the Earth's Potential from Gravity Measurements on a Known Surface, and Its Accuracy for a Model Earth. (T) V. G. Shkodrov. 13, 352 (1969) [46, 446 (1969)]

Current Status of Determinations of the Gravitational Constant and the Mass of the Earth. (R) M. U. Sagitov. 13, 712 (1970) [46, 907 (1969)]

INFRARED PHOTOMETRY

Photometric and Spectroscopic Observations of Planets in the 8-14 μ Range. (E/T) V. I. Moroz, V. D. Davydov, and V. S. Zheguley. 13, 101 (1969) [46, 136 (1969)]

The Infrared Brightness of the Milky Way. (E) A. S. Sharov. 13, 947 (1970) [46, 1207 (1969)]

INSTRUMENTS AND ACCESSORIES

Improved Determination of the Response Curves and Parameters of the UBV System. Summary of Results. (E/T) A. Ažusienis and V. Straižys. 13, 316 (1969) [46, 402 (1969)]

Determination of the Photogrammetric Parameters of Cameras from Star Photographs. (T) Ya. L. Ziman. 13, 524 (1969) [46, 665 (1969)]

INTERFEROMETRY

Observations of the Filamentary Nebula IC 443 in the Hα Line with a Fabry-Perot Interferometer. (E) T. A. Lozinskaya. 13, 192 (1969) [46, 245 (1969)]

Study of Several Emission Nebulae in the Hα-Line by Means of a Fabry-Perot Interferometer. (E) V. T. Doroshenko. 13, 427 (1969) [46, 544 (1969)]

Interferometer Observations of the Filamentary Nebula S22. (E/T) T. A. Lozinskaya. 13, 573 (1970) [46, 730 (1969)]

Computations for an Astronomical Fabry-Perot Interference Spectrometer. (T) S. I. Sheheglova. 13, 696 (1970) [46, 885 (1969)]

A Superposed-Ray Interferometer. (E) E. S. Kulagin. 13, 1023 (1970) [46, 1310 (1969)]

INTERGALACTIC MEDIUM

Thermal Conditions in the Intergalactic Gas. (T/E) A. G. Doroshkevich and R. A. Syunyaev. 13, 15 (1969) [46, 20 (1969)]

Metagalactic Electrons. (T) I. Rozental' and I. Shukalov. 13, 210 (1969) [46, 266 (1969)]

Interaction of the Ionizing Background Radiation with Galaxies, and Limits on the Intergalactic Gas Density. (T/E) R. A. Syunyaev. 13, 729 (1970) [46, 929 (1969)]

INTERPLANETARY MEDIUM

Solar Radiation Pressure on Particles of Interplanetary Dust. (T) L. M. Gindilis, N. B. Divari, and L. V. Reznova. 13, 114 (1969) [46, 152 (1969)]

Radioastronomical Investigations of the Drift of the Inhomogeneous Interplanetary Plasma. (E) V. V. Vitkevich and V. I. Vlasov. 13, 669 (1970) [46, 851 (1969)]

INTERSTELLAR MEDIUM

Low-Energy Cosmic Rays and Plasma Turbulence. (T) S. B. Pikel'ner and V. N. Tsytovich. 13, 5 (1969) [46, 8 (1969)]

Relation between the Discrete Radio Source W 43 and the Neutral-Hydrogen Distribution. (E) V. I. Ariskin, I. I. Berulis, and R. L. Sorochenko. 13, 219 (1969) [46, 278 (1969)]

Absorption of Radio Waves by the Interstellar Medium and the Distribution of Cosmic Radio Emission. (E/T) E. A. Benediktov, T. V. Efimova, and L. A. Skrebkova. 13, 226 (1969) [46, 286 (1969)]

Interstellar Extinction and the Bimodal Particle-Size Distribution. (T/E) G. M. Aivazyan. 13, 488 (1969) [46, 620 (1969)]

Interaction of the Ionizing Background Radiation with Galaxies, and Limits on the Intergalactic Gas Density. (T/E) R. A. Syunyaev. 13, 729 (1970) [46, 929 (1969)]

Faraday Rotation in Pulsars and the Interstellar Medium. (T/E) N. A. Lotova. 13, 914 (1970) [46, 1165 (1969)]

INTERSTELLAR MEDIUM, INTERACTION WITH STARS

Radiation by Magnetosonic Waves Generated in a Stellar Wind. (T) V. D. Brengauz. 13, 37 (1969) [46, 49 (1969)]

The Interaction of Stars with the Interstellar Medium. (T/E) V. V. Radzievskii and M. M. Dagaev. 13, 42 (1969) [46, 56 (1969)]

X-Ray Emission Accompanying the Accretion of Gas by a Neutron Star. (T) Ya. B. Zel'dovich and N. I. Shakura. 13, 175 (1969) [46, 225 (1969)]

Non-Jeans Gravitational Instability of a System of Stars and Interstellar Gas. (T) A. A. Suchkov. 13, 418 (1969) [46, 534 (1969)]

Motion of the Interstellar Medium under the Action of a Nova or Supernova Envelope. (T) V. F. D'yachenko, V. S. Imshennik, and V. V. Paleichik. 13, 580 (1970) [46, 739 (1969)]

IONIZATION AND EXCITATION

Excitation, Ionization, and Recombination Rates for Ions in the Solar-Corona Plasma. (T) I. L. Beigman, L. A. Vainshtein, and A. Vinogradov. 13, 775 (1970) [46, 985 (1969)]

Dependence of the Collisional-Excitation Cross Section for the Hydrogen Atom on the Principal Quantum Numbers of the Lower and Upper Levels. (T/E) I. A. Krinberg. 13, 780 (1970) [46, 993 (1969)]

Excitation of Helium in Solar Prominences. (T) N. N. Morozhenko. 13, 929 (1970) [46, 1184 (1969)]

JUPITER

Radio Emission of Venus and Jupiter at 2.25 and 8 mm. (E) V. A. Efanov, A. G. Kislyakov, I. G. Moiseev, and A. I. Naumov. 13, 110 (1969) [46, 147 (1969)]

Observations of Jupiter at Pulkovo at 3.95 cm. (E) N. S. Soboleva and G. M. Timofeeva. 13, 685 (1970) [46, 872 (1969)]

LATITUDE AND LONGITUDE

An Investigation of Low-Frequency Nonpolar Latitude Variations at Several Observatories. (E/T) N. R. Persiyaninova. 13, 144 (1969) [46, 192 (1969)]

Evaluation of the Earth's Free-Nutation Parameters from 119 Years of Observations. (E/T) L. V. Rykhlova. 13, 544 (1969) [13, 689 (1969)]

MAGNETIC FIELDS

The Hypothesis of Cosmological Magnetic Inhomogeneity. (T) Ya. B. Zel'dovich. 13, 608 (1970) [46, 775 (1969)]

MAGNETOHYDRODYNAMICS

Radiation by Magnetosonic Waves Generated in a Stellar Wind. (T) V. D. Brengauz. 13, 37 (1969) [46, 49 (1969)]

The Development of Turbulence in a Conducting Field. (T) Yu. B. Ponomarenko. 13, 86 (1969) [46, 117 (1969)]

MARS

The Magnitude of Mars and the Brightness Distribution Over the Disk. (E/T) N. P. Barabashov. 13, 338 (1969) [46, 430 (1969)]

New Interpretations of Mayeda's Flare on Mars. I. (T/E) V. D. Davydov. 13, 491 (1969) [46, 623 (1969)]

Optical Parameters of the Martian Surface and Atmosphere. (E/T) K. Koval' and É. G. Yanovitskii. 13, 499 (1969) [46, 633 (1969)]

New Interpretations of Mayeda's Flare on Mars. II. (T/E) V. D. Davydov. 13, 841 (1970) [46, 1074 (1969)]

The Atmosphere of Mars According to Polarization Observations. (E/T) A. V. Morozhenko. 13, 852 (1970) [46, 1087 (1969)]

The Diurnal Temperature Variation in the Aerosol-Gaseous Atmosphere and Surface Layer of Mars. (T/E) V. I. Aleshin and T. N. Fedoseeva. 13, 858 (1970) [46, 1095 (1969)]

The Phase Curve of Mars and the Brightness Distribution over Its Disk. (E/T) N. P. Barabashov. 13, 977 (1970) [46, 1247 (1969)]

METEOR STREAMS

A Possible Mechanism for the Meteor-Correlated Variation in the Cosmic-Ray Intensity. (T/E) S. A. Bel'skii. 13, 1044 (1970) [46, 1330 (1969)]

MOON, GRAVITATIONAL FIELD

The Potential and Gravity Distribution on the Moon's Physical Surface. (T) N. A. Chulkova. 13, 878 (1970) [46, 1119 (1969)]

MOON, RADIO EMISSION

Effect of Heat from within the Moon on Its Radio Emission for the Case of Lunar Properties Which Vary with Depth. (T) T. V. Tikhonova and V. S. Troitskii. 13, 120 (1969) [46, 159 (1969)]

Long-Term Measurements of Lunar Radio Emission at 3.2 cm. (E) A. M. Starodubtsev. 13, 514 (1969) [46, 652 (1969)]

MOON, SURFACE PROPERTIES

Phase Variations in the Spectral Polarimetric Curves of Lunar Formations. (E) L. N. Bondarenko. 13, 689 (1970) [46, 877(1969)]

The Structure and Proposed Composition of Rocks on the Floors of Young Lunar Craters. (E) V. V. Novikov. 13, 874 (1970) [46, 1115 (1969)]

Inhomogeneous Properties of Lunite in the Subsurface Layer. (T/E) O. B. Shchuko. 13, 989 (1970) [46, 1264 (1969)]

The Spectral Reflection Coefficient of the Lunar Surface for Radio Waves, and the Depth Dependence of the Soil Properties. (E/T) T. V. Tikhonova and V. S. Troitskii. 13, 1039 (1970) [46, 1324 (1969)]

NEBULAE, DIFFUSE

Study of Several Emission Nebulae in the $H\alpha$-Line by Means of a Fabry-Perot Interferometer. (E) V. T. Doroshenko. 13, 427 (1969) [46, 544 (1969)]

The Structure of Fine-Filament Reflection Nebulae. (T/E) B. P. Artamonov. 13, 769 (1970) [46, 978 (1969)]

NEBULAE, PLANETARY

A Model for the Fine Radial Filaments Observed in the Planetary Nebula NGC 7293. (E/T) I. M. Yankulova. 13, 32 (1969) [46, 43 (1969)]

Planetary Nebulae As Possible X-Ray Sources. (T) G. S. Khromov. 13, 587 (1970) [46, 747 (1969)]

NEUTRINO RADIATION

Neutrino Radiation by the URCA Process at High Temperatures. (T) D. K. Nadezhin and V. M. Chechetkin. 13, 213 (1969) [46, 270 (1969)]

NOVAE

An Analysis of the CN Absorption Bands in the Spectrum of Nova Herculis 1934. (E/T) L. I. Antipova. 13, 288 (1969) [46, 356 (1969)]

Motion of the Interstellar Medium under the Action of a Nova or Supernova Envelope. (T) V. F. D'yachenko, V. S. Imshennik, and V. V. Paleichik. 13, 580 (1970) [46, 739 (1969)]

NUCLEAR REACTIONS

The Equilibrium State of Matter at High Temperatures and Densities. (T) V. M. Chechetkin. 13, 153 (1969) [46, 202 (1969)]

Neutronization of Matter at High Densities. (T) V. M. Chechetkin. 13, 157 (1969) [46, 206 (1969)]

ORBITS, THEORY AND COMPUTATION

Theory of Orbits — The Restricted Problem of Three Bodies. Victor Szebehely. Reviewed by E. Grebenikov. 13, 364 (1969) [46, 459 (1969)]

PHOTOGRAPHIC TECHNIQUES

A Comparison of the Highest-Sensitivity Photographic Plates of Different Manufacturers. (E) I. I. Breido and K. P. Ermoshina. 13, 719 (1970) [46, 916 (1969)]

PHOTOMETRY

Application of a Narrow Slit in the Photometry of Stellar Systems. (E) Ü.-L. K. Veltmann. 13, 542 (1969) [46, 687 (1969)]

Some Fundamental Difficulties in Applying the Equidensity-Curve Method to Astrophotometry and Photographic Astrometry. (E) L. V. Zhukov. 13, 699 (1970) [46, 889 (1969)]

The Possibilities of Correcting for the Errors Due to Blurring of a Planetary Image. (T) V. N. Dudinov. 13, 833 (1970) [46, 1064 (1969)]

PLANETS AND SATELLITES

Photometric and Spectroscopic Observations of Planets in the 8-14 μ Range. (E/T) V. I. Moroz, V. D. Davydov, and V. S. Zhegulev. 13, 101 (1969) [46, 136 (1969)]

Surface Albedo and Illuminance of a Planet with an Atmosphere. (T) V. V. Sobolev. 13, 330 (1969) [46, 419 (1969)]

Theory of the Figure of Rotating Planets in Hydrostatic Equilibrium — A Third Approximation. (T) V. N. Zharkov and V. P. Trubitsyn. 13, 981 (1970) [46, 1252 (1969)]

PLASMA PROCESSES

Proceedings of the Plasma Space Science Symposium. (R) C. C. Chang and S. S. Huang, Editors. Reviewed by S. B. Pikel'ner. 13, 169 (1969) [46, 219 (1969)]

A Theory for the Formation and Stability of the Jets in Quasars and Radio-Galaxy Nuclei. (T/E) G. S. Bisnovatyi-Kogan, B. V. Komberg, and A. M. Fridman. 13, 369 (1969) [46, 465 (1969)]

The Induced Compton Effect for Electromagnetic and Plasma Waves under Astrophysical Conditions. (T) V. N. Tsytovich and A. S. Chikhachev. 13, 385 (1969) [46, 486 (1969)]

Variable Radiation in a Magnetodynamic Quasar Model. II. Prediction of Rapid Brightness-Variations. (T) L. M. Ozernoi and V. E. Chertoprud. 13, 738 (1970) [46, 940 (1969)]

The Structure of Fine-Filament Reflection Nebulae. (T/E) B. P. Artamonov. 13, 769 (1970) [46, 978 (1969)]

The Excitation and Spectrum of Plasma Turbulence in Objects with a High Radiation Density. (T) É. N. Krivorutskii and V. N. Tsytovich. 13, 788 (1970) [46, 1003 (1969)]

Spherical and Cylindrical Nonlinear Waves. (T) M. A. Gintsburg. 13, 799 (1970) [46, 1019 (1969)]

The Nature of the Inhomogeneous Structure of the Circumsolar Plasma. (T/E) I. S. Baikov and N. A. Lotova. 13, 828 (1970) [46, 1057 (1969)]

PRIMORDIAL BACKGROUND RADIATION

Metagalactic Electrons. (T) I. Rozental' and I. Shukalov. 13, 210 (1969) [46, 266 (1969)]

Absolute Temperature Measurements of the Cosmic Radio Emission of the Sky in the Decimeter Range. (E) S. A. Pelyushenko and K. S. Stankevich. 13, 223 (1969) [46, 283 (1969)]

PULSARS

Possible Causes of the Secular Increase in Pulsar Periods. (T (T/E) I. S. Shklovskii. 13, 562 (1970) [46, 715 (1969)]

Faraday Rotation in Pulsars and the Interstellar Medium. (T/E) N. A. Lotova. 13, 914 (1970) [46, 1165 (1969)]

QUASISTELLAR OBJECTS, OPTICAL OBSERVATIONS

Improved Statistical Parameters for the Optical Variability of the Quasar 3C 273. (E/T) L. M. Ozernoi, V. E. Chertoprud, and S. D. Chuvakhin. 13, 1029 (1970) [46, 1317 (1969)]

QUASISTELLAR OBJECTS, PHYSICAL THEORY

A Theory for the Formation and Stability of the Jets in Quasars and Radio-Galaxy Nuclei. (T/E) G. S. Bisnovatyi-Kogan, B. V. Komberg, and A. M. Fridman. 13, 369 (1969) [46, 465 (1969)]

The Origin of Absorption Lines in the Spectra of Quasistellar Objects. (T/E) I. S. Shklovskii. 13, 734 (1970) [46, 935 (1969)]

Variable Radiation in a Magnetodynamic Quasar Model. II. Prediction of Rapid Brightness Variations. (T) L. M. Ozernoi and V. E. Chertoprud. 13, 738 (1970) [46, 940 (1969)]

QUASISTELLAR OBJECTS, RADIO OBSERVATIONS

Variability of Radio Sources at 6.6 cm Wavelength. (E/T) N. M. Lipovka. 13, 21 (1969) [46, 28 (1969)]

RADIATION SCATTERING

Surface Albedo and Illuminance of a Planet with an Atmosphere. (T) V. V. Sobolev. 13, 330 (1969) [46, 419 (1969)]

Anisotropic Scattering of Light in a Semi-Infinite Atmosphere. III. (T) V. V. Sobolev. 13, 403 (1969) [46, 612 (1969)]

Diffuse Reflection and Transmission of Light by an Atmosphere for an Arbitrary Scattering Function. (T) V. V. Sobolev. 13, 893 (1970) [46, 1137 (1969)]

RADIATIVE TRANSFER THEORY

Generation and Transfer of Polarized Synchrotron Radiation. (T) V. N. Sazonov. 13, 396 (1969) [46, 502 (1969)]

Relativistically Covariant Equations for the Coupling of Radiation with Matter. (T) V. S. Imshennik and Yu. I. Morozov. 13, 628 (1970) [46, 800 (1969)]

RADIO ASTRONOMY

Radio Emission of Venus and Jupiter at 2.25 and 8 mm. (E) V. A. Efanov, A. G. Kislyakov, I. G. Moiseev, and A. I. Naumov, 13, 110 (1969) [46, 147 (1969)]

Refraction and Scattering of Radiation from Cosmic Radio Sources Occulted by the Solar Corona. (T) P. V. Bliokh, V. G. Sinitsyn, and I. M. Fuks. 13, 275 (1969) [46, 348 (1969)]

Reconstruction of the Radio-Brightness Distribution over a Surface. (T) A. N. Tikhonov, V. V. Vitkevich, V. S. Artyukh, V. B. Glasko, A. V. Goncharskii, and A. G. Yagola. 13, 374 (1969) [46, 472 (1969)]

Radioastronomical Investigations of the Drift of the Inhomogeneous Interplanetary Plasma. (E) V. V. Vitkevich and V. I. Vlasov. 13, 669 (1970) [46, 851 (1969)]

RADIO EMISSION MECHANISMS

The Nature of Sources of Maser Radiation in OH Lines. (T) I. S. Shklovskii. 13, 1 (1969) [46, 3 (1969)]

The Buildup of Electromagnetic Waves by the Induced Compton Effect as a Possible Source of Strong Radio Emission. (T/E) S. A. Kaplan and V. N. Tsytovich. 13, 150 (1969) [46, 199 (1969)]

RELATIVITY AND GRAVITATION

The Stability of the Quasistatic Solutions for a System of Gravitationally Interacting Masses in General Relativity Theory. (T) M. A. Podurets. 13, 94 (1969) [46, 126 (1969)]

Remarks on Arifov and Kadyev's Paper, "The Relativistic Theory of Annual Parallaxes." (T) A. A. Mikhailov. 13, 358 (1969) [46, 454 (1969)]

Relativistically Covariant Equations for the Coupling of Radiation with Matter. (T) V. S. Imshennik and Yu. I. Morozov. 13, 628 (1970) [46, 800 (1969)]

Focusing of Radiation by a Gravitational Field. (T) A. V. Byalko. 13, 784 (1970) [46, 998 (1969)]

Circular and Radial Trajectories in a Generalized Schwarzschild Field. (T) B. V. Prepelitsa. 13, 889 (1970) [46, 1130 (1969)]

SELENODESY

A Cartographic Grid for the Zond 3 Lunar Photographs Derived by Reference-Point Rectification. (E) Yu. N. Lipskii and V. I. Chikmachev. 13, 507 (1969) [46, 643 (1969)]

Selenodetic Studies from Positional Observations of the Moon. (E) S. G. Valeev. 13, 993 (1970) [46, 1270 (1969)]

SHOCK WAVES

A Model for the Fine Radial Filaments Observed in the Planetary Nebula NGC 7293. (E/T) I. M. Yankulova. 13, 32 (1969) [46, 43 (1969)]

SOLAR ACTIVITY

A Correlation Spectral Analysis of the Periodicities in Solar Activity. (T/E) L. V. Zhukov and Yu. S. Muzalevskii. 13, 473 (1969) [46, 600 (1969)]

SOLAR-TERRESTRIAL RELATIONSHIPS

Geomagnetic Disturbances at Conjugate Points and Some Effects of Solar Plasma on the Magnetosphere. (E/T) M. S. Bobrov. 13, 677 (1970) [46, 862 (1969)]

The Influence of Corpuscular Streams on the Earth's Atmospheric Circulation. I. The Character of the Air-Pressure Variations at Different Seasons. (E) É. R. Mustel'. 13, 918 (1970) [46, 1169 (1969)]

SOLAR WIND

A Mechanism for Generating Alfvén Waves in Comets. (E/T) Z. M. Ioffe. 13, 1042 (1970) [46, 1328 (1969)]

SPACE PROBES

A Cartographic Grid for the Zond 3 Lunar Photographs Derived by Reference-Point Rectification. (E) Yu. N. Lipskii and V. I. Chikmachev. 13, 507 (1969) [46, 643 (1969)]

SPECTRAL LINES

An Analysis of Hydrogen-Line Profiles Broadened by the Stark and Doppler Effects. (T/E) L. N. Kurochka. 13, 64 (1969) [46, 85 (1969)]

Fine Structure of the Principal Term of Ca XV and Coronal Lines. (E/T) É. Ya. Kononov. 13, 269 (1969) [46, 340 (1969)]

STARS, ATMOSPHERES

Application of Nonlinear Limb-Darkening Laws to Close Binary Systems. (T) M. E. Kiperman and A. M. Shul'berg. 13, 324 (1969) [46, 412 (1969)]

STARS, DISTANCES AND DISTRIBUTION

The Space Distribution of B8–A0 and Early B Stars in Some Milky-Way Fields at Galactic Longitudes 15°–136°. (E) N. B. Grigor'eva. 13, 807 (1970) [46, 1029 (1969)]

STARS, MAGNETIC FIELDS

Generation of Stellar Magnetic Fields by Convective Motions in the Surface Layers. (T/E) Yu. B. Ponomarenko. 13, 295 (1969) [46, 376 (1969)]

STARS, MOTIONS

Acceleration of the Galactic Motion of Stars. (T/E) E. F. Brazhnikova, M. M. Dagaev, and V. V. Radzievskii. 13, 480 (1969) [46, 610 (1969)]

A Method for Identifying High-Velocity OB Stars. (E/T) E. D. Pavlovskaya. 13, 660 (1970) [46, 840 (1969)]

Studies of Local Star Streams. II. The Ursa Major Stream. (E) K. F. Ogorodnikov and I. N. Latyshev. 13, 934 (1970) [46, 1190 (1969)]

STARS, ROTATION

Hydrodynamical Theory of Stellar Rotation. I. Rotation of Stars in the Gravitational-Contraction Phase. (T) V. V. Porfir'ev. 13, 442 (1969) [46, 560 (1969)]

Hydrodynamical Theory of Stellar Rotation. II. Steady-State Rotation and Meridional Circulation. (T) V. V. Porfir'ev. 13, 641 (1970) [46, 817 (1969)]

STARS, SPECTROPHOTOMETRY

Reddening Lines in the UBV System for Type G8-K0 Giants. (E/T) A. E. Vasilevskii. 13, 485 (1969) [46, 616 (1969)]

Observations of Early-Type Stars in the Cluster NGC 6913. (E) R. M. Raznik. 13, 657 (1970) [46, 837 (1969)]

STARS, SUPERDENSE AND NEUTRON

Neutronization of Matter at High Densities. (T) V. M. Chechetkin. 13, 157 (1969) [46, 206 (1969)]

X-Ray Emission Accompanying the Accretion of Gas by a Neutron Star. (T) Ya. B. Zel'dovich and N. I. Shakura. 13, 175 (1969) [46, 225 (1969)]

A Mechanism for Emission of X Rays by a Neutron Star. (T) G. S. Bisnovatyi-Kogan and A. M. Fridman. 13, 566 (1970) [46, 721 (1969)]

STATISTICS AND PROBABILITY

Fundamentals of the Theory of Errors for Astronomers and Physicists. (R) T. A. Agekyan. Reviewed by Yu. Gulyanitskii. 13, 171 (1969) [46, 220 (1969)]

Seven-Figure Tables of the Trigonometric Functions for Each One-Hundredth Grade (Decimal Division of the Circle). (R) D. V. Zagrebin. Reviewed by L. S. Khrenov. 13, 546 (1969) [46, 691 (1969)]

SUN, ATMOSPHERE

The Properties of Motions Inside and Outside of Flocculi. (E) S. I. Gopasyuk and T. T. Tsap. 13, 725 (1970) [46, 923 (1969)]

The Difference of the Turbulent Velocities in the Active and Unperturbed Photosphere. (T/E) O. G. Badalyan and M. A. Livshits. 13, 811 (1970) [46, 1035 (1969)]

SUN, COSMIC RAYS

A Possible Mechanism for the Metero-Correlated Variation in the Cosmic-Ray Intensity. (T/E) S. A. Bel'skii. 13, 1044 (1970) [46, 1330 (1969)]

SUN, FLARES AND PROMINENCES

Turbulent Velocities and the Structure of Quiescent Prominences. (E/T) A. I. Kiryukhina. 13, 49 (1969) [46, 66 (1969)]

Chromospheric Flares and Phenomena in the Upper Layer of an Active Region. I. (E/T) Yu. M. Slonim. 13, 450 (1969) [46, 570 (1969)]

Spectroscopic Investigation of a Chromospheric Flare on September 2, 1966. (E) N. N. Stepanyan. 13, 459 (1969) [46, 580 (1969)]

Chromospheric Flares and Phenomena in the Upper Layer of an Active Region. II. (T) Yu. M. Slonim. 13, 551 (1970) [46, 697 (1969)]

Polarization Measurement of CaI λ 4227 Radiation from a Solar Prominence. (T/E) G. M. Nikol'skii and Ts. S. Khetsuriani. 13, 815 (1970) [46, 1040 (1969)]

Excitation of Helium in Solar Prominences. (T) N. N. Morozhenko. 13, 929 (1970) [46, 1184 (1969)]

SUN, MAGNETIC FIELDS

A Mechanism for the Formation of Chromospheric Spicules. (T) S. B. Pikel'ner. 13, 259 (1969) [46, 328 (1969)]

The Problem of the Existence of Short-Period Pulsations of the Magnetic Field in the Solar Atmosphere. (T) V. D. Brengauz. 13, 283 (1969) [46, 359 (1969)]

Electromagnetic Acceleration of Charged Particles in Nonstationary Sunspot Magnetic Fields. (T) P. E. Kolpakov. 13, 821 (1970) [46, 1047 (1969)]

SUN, MOLECULES IN ATMOSPHERE

Structure of the CO Layer in the Solar Atmosphere. (E/T) N. I. Kozhevnikov and V. V. Polonskii. 13, 267 (1969) [46, 337 (1969)]

SUN, RADIO EMISSION

On the Possibility of Estimating the Magnetic Field in the Solar Corona from the Temporal Behavior of Type III Radio Bursts. (T) V. V. Fomichev and I. M. Chertok. 13, 271 (1969) [46, 343 (1969)]

An Attempt to Detect Lines of Highly Charged Ions at 5-cm Wavelength Formed by Dielectronic Recombination in the Solar Corona. (E) A. F. Dravskikh and Z. V. Dravskikh. 13, 360 (1969) [46, 455 (1969)]

Temperature Determination in the Corona from the Time Profile of Type III Radio Bursts. (T) V. V. Fomichev and I. M. Chertok. 13, 1032 (1970) [46, 1319 (1969)]

SUN, ROTATION

The Nature of the Sun's Differential Rotation. (T) R. S. Iroshnikov. 13, 73 (1969) [46, 97 (1969)]

SUN, SPECTRUM

Limb Effect of the Fraunhofer Lines in the Solar Spectrum. (E/T) R. Kh. Salman-Zade. 13, 466 (1969) [46, 589 (1969)]

SUNSPOTS

Equivalent Line Widths in Sunspots. (T/E) R. B. Teplitskaya and V. D. Turchina. 13, 55 (1969) [46, 74 (1969)]

SUPERNOVAE

Observations of Chiadze's and Wild's Supernovae. (E) G. G. Borzov, É. A. Dibai, V. F. Esipov, and V. I. Pronik. 13, 423 (1969) [46, 540 (1969)]

The Light Curves of Supernovae. (T) É. K. Grasberg and D. K. Nadezhin. 13, 585 (1970) [46, 745 (1969)]

Supernova Outbursts and the Generation of Relativistic Particles. (T/E) L. É. Gurevich and A. A. Rumyantsev. 13, 908 (1970) [46, 1158 (1969)]

SUPERNOVA REMNANTS

Observations of the Filamentary Nebula IC 443 in the Hα Line with a Fabry-Perot Interferometer. (E) T. A. Lozinskaya. 13, 192 (1969) [46, 245 (1969)]

Interferometer Observations of the Filamentary Nebula S22. (E/T) T. A. Lozinskaya. 13, 573 (1970) [46, 730 (1969)]

Observations at Pulkovo of the Distribution of Polarized and Unpolarized Radiation over the Radio Source W44 at 3.95 and 6.6 cm. (E/T) N. S. Soboleva. 13, 750 (1970) [46, 955 (1969)]

SYNCHROTRON RADIATION

Derivation of the Electron Energy Distribution from a Synchrotron-Radiation Spectrum. (T) M. M. Molodenskii. 13, 231 (1969) [46, 292 (1969)]

Generation and Transfer of Polarized Synchrotron Radiation. (T) V. N. Sazonov. 13, 396 (1969) [46, 502 (1969)]

The Relation between the Stokes Parameters for Synchrotron Radiation and the Maxwell Stress Tensor of the Emission Region. (T) M. M. Molodenskii. 13, 625 (1970) [46, 797 (1969)]

Negative Reabsorption of Synchrotron Radiation. (T) V. N. Sazonov. 13, 797 (1970) [46, 1016 (1969)]

TIDES AND TIDAL PHENOMENA

Tidal Deformations and the Earth's Biweekly Nutation from Observations by Five Time Services. (E/T) V. S. Gubanov. 13, 529 (1969) [46, 671 (1969)]

TURBULENCE

The Development of Turbulence in a Conducting Field. (T) Yu. B. Ponomarenko. 13, 86 (1969) [46, 117 (1969)]

The Excitation and Spectrum of Plasma Turbulence in Objects with a High Radiation Density. (T) É. N. Krivorutskii and V. N. Tsytovich. 13, 788 (1970) [46, 1003 (1969)]

URANUS, NEPTUNE, PLUTO

The Molecular Rotational Temperature of Uranus and an Upper Limit on the Pressure in its Outer Atmosphere. (E/T) V. G. Teifel' and G. A. Kharitonova. 13, 865 (1970) [46, 1104 (1969)]

VENUS

Radio Emission of Venus and Jupiter at 2.25 and 8 mm. (E) V. A. Efanov, A. G. Kislyakov, I. G. Moiseev, and A. I. Naumov. 13, 110 (1969) [46, 147 (1969)]

A New Determination of the Wavelength Dependence of Venus' Albedo in the Ultraviolet Region. (E) I. N. Glushneva. 13, 162 (1969) [46, 211 (1969)]

X RAYS, EMISSION MECHANISMS

X-Ray Emission Accompanying the Acceretion of Gas by a Neutron Star. (T) Ya. B. Zel'dovich and N. I. Shakura. 13, 175 (1969) [46, 225 (1969)]

A Mechanism for Emission of X Rays by a Neutron Star. (T) G. S. Bisnovatyi-Kogan and A. M. Fridman. 13, 566 (1970) [46, 721 (1969)]

Planetary Nebulae As Possible X-Ray Sources. (T) G. S. Khromov. 13, 587 (1970) [46, 747 (1969)]